



CALCIUM CHLORIDE FIELD SECTION 2010

2010.1 SCOPE. To establish procedures for sampling, inspecting, and reporting calcium chloride to be used for dust laying, stabilization, ice removal, or other road conditioning purposes.

2010.2 APPARATUS. Sample containers for submitting samples to the Laboratory shall be one-quart [1 liter], friction top cans. All containers and equipment shall be clean, dry, and free of all contaminants.

2010.3 PROCEDURE.

2010.3.1 Inspection. The first shipment per supplier per district on a purchase order or a project shall be sampled and the gradation determined in accordance with this Section. If the gradation complies with the requirements of the specifications, a sample shall be submitted to the Laboratory for chemical analysis.

2010.3.1.1 If the sample fails to meet the gradation requirements of the specifications, two additional samples shall be obtained and tested. Both of the additional samples must meet the gradation requirements, or the lot represented by the samples will be rejected. The calcium chloride shall be rejected if it has become caked or sticky.

2010.3.1.2 Additional shipments shall be sampled and tested for gradation at the minimum rate of 1 per 100 tons [90 Mg] per supplier per district. Samples for chloride content shall be submitted to the Laboratory at the rate of 1 per 500 tons [450 Mg] per supplier per district.

2010.3.2 Sampling. Samples shall be obtained by selecting not less than three bags at random from the shipment. Each of the bags shall be sampled by scraping aside the top layer to a depth of at least one inch and taking approximately one-pound [500 g] samples by means of a sampling thief or other method that will ensure a representative sample of the material in the bag to a depth of at least 6 inches [150 mm].

2010.3.2.1 Precautions should be taken during -sampling to avoid exposing the sample unduly to atmospheric moisture. The individual samples shall be immediately and thoroughly mixed to form a representative composite sample of the material. The sample to be submitted to the Laboratory shall consist of approximately one quart [1 liter] of material in a friction top can.

2010.3.3 Sieve Analysis. Approximately 200 g of calcium chloride, weighed to the nearest 0.1 g, shall be sieved in accordance with AASHTO T27, utilizing the 3/8 in. [9.5 mm], No. 4 [4.75 mm], and No. 30 [600 μ m] sieves together with a bottom pan and a cover. Sieving shall be completed within a period of approximately one minute.

2010.3.4 Packaging and Marking. The calcium chloride is to be delivered in moisture-proof bags, each bag containing approximately 50 - 80 lb [20-35 kg]. The inspector shall ascertain that the containers are legibly marked with the name of the manufacturer, name of the product, net weight [mass], and percentage of calcium chloride guaranteed by the manufacturer.



2010.4 REPORT. Calcium chloride sampled and submitted to the Laboratory will be reported by the Laboratory in accordance with [Laboratory Sec 2010](#) of this Manual. All calcium chloride is to be field reported on Form T-634. Field reports shall include the last Laboratory number under which the chemical composition was tested and accepted. The report is to indicate acceptance or rejection. Appropriate remarks, as described in [General Sec 7.1.2](#) of this Manual, are to be included in the report to clarify conditions of acceptance or rejection. All shipments are to be reported by the District.

2010.4.1 Use Class B report distribution from [General Section 7.1.7.2](#).

